

Response to Withdrawal of Claim 17

The Examiner has withdrawn Claim 17 from consideration as being directed to a non-elected invention. The Examiner states that Claim 17 is drawn to an invention independent and distinct from the invention as originally claimed. Applicant respectfully disagrees.

Claim 7 calls for a transformer including first and second bobbin members, wherein the second bobbin member includes a structure for receiving a PCB. Claim 10 calls for a transformer including first and second bobbin members, wherein the first bobbin member includes a structure for receiving a PCB. Claim 17 is directed to another embodiment of the invention, wherein the first and second bobbin members each has a structure for receiving a PCB. The embodiment claimed in Claim 17 is narrower in scope than the embodiments claimed in Claims 7 and 10. Therefore, Applicant respectfully requests that Claim 17 be reinstated for continuing prosecution in this application.

Response to Rejection of Claims 1, 15, and 16 under 35 U.S.C. §102(b)

The Examiner has rejected Claims 1, 15, and 16 under 35 U.S.C. §102(b) as being anticipated by Eng, Jr., et al. (U.S. Patent No. 4,857,878). “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053(Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the ...claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Claims 1, 15, and 16 call for a transformer comprising a first bobbin member having a first body portion defining a first hollow region and a second bobbin member having a second body portion defining a second hollow region. Claims 1, 15, and 16 further call for the “second body portion comprising two sections at the periphery of the second hollow region forming **a recess separate from the second hollow region**, said recess shaped such that a tubular portion is positioned therewithin for joining the first and second bobbin members”. (emphasis added)

Figs. 7 and 12 show embodiments of the invention where the first bobbin member 40 has a tubular portion 49 that can be inserted within the hollow region of the second body portion 29 (shown in FIG. 6b) so that the first and second bobbin members are coupled together (Page 10, lines 15-19). As stated in the specification, “the tubular portion 49 of the first bobbin member 40 is cooperatively structured with the recess formed by the sections 29(a), 29(b) of the second body

portion 29 (best shown in Figs. 12 and 13). The tubular portion 49 may be inserted within this recess and the two bobbin members 20, 40 may be joined together. The tubular portion 49 increases the creepage distance between a conductive layer, positioned between the first and second bobbin members, and the core passing through the bobbin member (Page 10, lines 21-23).

The Examiner states that Eng, Jr., et al. discloses a transformer having a second bobbin member 202 having a second body portion comprising two sections (Fig. 3) at the periphery of the second hollow region forming a recess separate from the hollow region, the recess shaped such that the tubular portion is positioned therewithin for joining the first and second bobbin members. Applicant respectfully disagrees.

Applicant respectfully submits that Eng, Jr., et al. does not expressly or inherently describe a structure having a recess separate from a hollow region and shaped such that a tubular portion is positioned therewithin, as claimed in Claims 1, 15, and 16. By contrast, Eng, Jr., et al. as shown in Figs. 1-3, discloses a structure having a protrusion 205 that is moved axially through an aperture 206 and the second hollow region of bobbin member 202 until first mating flange 212 (shown in Fig. 2) comes into contact with primary retaining wall 302a (shown in Fig. 3). Eng, Jr., et al. further discloses second core retaining ears 204 of protrusion 205 that extend from a secondary face 330 of the second hollow region of bobbin 202 (Col. 3, lines 22-32, Figs. 3). Eng, Jr., et al. does not disclose two sections at the periphery of a hollow region forming a recess **separate from the hollow region** and shaped such that a tubular portion is positioned therewithin as required by Claims 1, 15, and 16.

Thus, Eng, Jr., et al. does not disclose each and every element of Claims 1, 15, and 16 either expressly or inherently. For the above reasons, Applicant respectfully submits that Claims 1, 15, and 16 are not anticipated by Eng, Jr., et al. and are thus in condition for allowance. Claim 9 depends from Claim 1 and is therefore allowable on the same basis as Claim 1.

Response to Rejection of Claims 2 -14 under 35 U.S.C. §103

Claims 2 and 4-6

Claims 2 and 4-6 were rejected under 35 U.S.C. §103(a) as being obvious in view of Eng, Jr., et al. and Tobben, et al. (U.S. Patent No. 4,596,974).

In the Office Action, the Examiner states that Eng, Jr., et al. discloses the invention claimed in Claim 2 except for the flange/lips being substantially perpendicular to each other. The Examiner further states that it would have been obvious at the time the invention was made to use the flange

design of Tobben, et al. in the bobbin structure of Eng, Jr., et al. for the purpose of providing a creepage distance for the device. Applicant respectfully disagrees.

The Examiner identifies elements 9, 11, 21, and 23 in Tobben, et al. as axially spaced walls, whereas Tobben, et al. describes these elements as "flanges". Tobben, et al. does not disclose a first bobbin member partially enclosed by a flange that includes two flange portions substantially perpendicular to each other, as claimed in Claim 2. Moreover, the structure shown in Tobben, et al. is quite different from that of the present invention and the structure disclosed in Eng, Jr., et al. Among other things, Tobben, et al. discloses **having a resilient device 49 (shown in FIG. 3) for securing** an E-shaped coil having a tubular center portion. The present invention, as claimed in Claim 2, is designed to obviate the need for any such resilient securing device as taught in Tobben, et al.

Thus, there is no suggestion or motivation to combine these references, and even if there were, the references could not be combined to achieve the structure claimed in Claim 2. For the above reasons, Applicant respectfully submits that Claim 2 is not obvious in view of Eng, Jr., et al. and Tobben, et al. and is thus in condition for allowance. Claims 4-6 depend from Claim 2 and are therefore allowable on the same basis as Claim 2.

Claim 9

The Examiner rejected Claim 9 under 35 U.S.C. §103(a) as being obvious in view of Eng, Jr., et al. The Examiner states that Eng, Jr., et al. discloses the invention claimed in Claim 9 except for the tubular portion having a rectangular cross-section. The Examiner further states that the particular shape/cross section of the tubular portion would have been an obvious design consideration based on the intended use. Applicant respectfully disagrees.

Claim 9 calls for a tubular portion of the transformer having a rectangular cross-section. Fig. 9 shows an embodiment of the tubular portion having a rectangular cross-section. By contrast, Eng, Jr., et al., as shown in Figs. 1 and 2, discloses a structure having retaining ears 204 extending from a portion 205. Eng, Jr., et al. discloses that a "protrusion 205 extends from an end wall 302a on flange 302 axially through aperture 208, to form second core retaining ears 204 at the opposite end of the transformer" (Col. 2, lines 54-57). The retaining ears structure in Eng, Jr., et al. does not teach or suggest having a rectangular cross-section as claimed for the tubular portion in Claim 9 and shown in the embodiment in Fig. 7.

If a proposed modification renders the prior art reference unsatisfactory for its intended

purpose, there would be no suggestion or motivation to make the proposed modification. *MPEP 2143.0; In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). Modifying the core retaining ears 204 structure of protrusion 205 to have a rectangular cross-section would not permit use of the "E" shaped core shown in Eng, Jr., et al. (see Fig. 1).

Moreover, references must be viewed without the benefit of impermissible hindsight afforded by the claimed invention. *W.L. Gore and Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983); M.P.E.P. §2141.01. Applicant respectfully submit that, in concluding that the particular shape/cross section of the tubular portion would have been an obvious design consideration based on the intended use, the Examiner is impermissibly relying on the hindsight provided by the present invention.

For the above reasons, Applicant respectfully submits that Claim 9 is not obvious in view of Eng, Jr., et al., and is thus in condition for allowance.

Claim 3

Claim 3 was rejected under 35 U.S.C. §103(a) as being obvious in view of Eng, Jr., et al. and Dobberstein (U.S. Patent No. 4,549,130).

Claim 3 claims a substantially planar conductive shield disposed between bobbin members which are adjacent to each other. By contrast, Dobberstein teaches a concentric shield that covers the entire length of a single bobbin sleeve. The Examiner states that the claimed shape of the shield would be an obvious design consideration based upon the intended applicant use. Applicant disagrees. There is no suggestion or motivation in the references to have a shield as claimed in Claim 3. Applicant respectfully submits that, in concluding that it would be obvious to design the device in Eng, Jr., et al. to have a conductive shield member design of Dobberstein, the Examiner is impermissibly relying on the hindsight provided by the present invention.

For the above reasons, Applicant respectfully submits that Claim 3 is not obvious in view of Eng, Jr., et al. and Dobberstein and is thus in condition for allowance.

Claim 7, 8, and 10-14

Claims 7 and 8 were rejected under 35 U.S.C. §103(a) as being obvious in view of Eng, Jr., et al., Tobben, et al., and Equi, et al. (U.S. Patent No. 4,939,623). Claims 10-14 were rejected under 35 U.S.C. §103(a) as being obvious in view of Tobben, et al. and Equi, et al.

Claims 7, 8, and 10 call for a structure having a PCB that is disposed parallel to the walls of

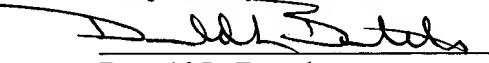
the first bobbin member and perpendicular to the common axis. By contrast, Equi, et al. shows a PCB disposed along the common axis (Figs. 2 and 3). Neither Eng, Jr., et al., Tobben, et al., nor Equi, et al. disclose the claimed structure such that the PCB is disposed as recited in Claims 7 and 8. The Examiner states that the specific location/arrangement of the mounting structure would have been an obvious design consideration based upon the environment/application use. Applicant respectfully disagrees.

Applicant respectfully submits that there is no suggestion or motivation in the references to have a structure having a PCB disposed as claimed in Claims 7, 8, and 10. Applicant respectfully submits that, in concluding that the specific location/arrangement of the mounting structure would have been an obvious design consideration, the Examiner is impermissibly relying on the hindsight provided by the present invention.

For the above reasons, Applicant respectfully submits that Claims 7, 8, and 10 are each not obvious in view of Eng, Jr., et al., Tobben, et al., and Equi, et al. and are thus in condition for allowance. Claims 11-14 depend from Claim 10 and are therefore allowable on the same basis as Claim 10.

Based on the above, Applicant respectfully submits that all pending claims, Claims 1-17, in the present application are in condition for allowance. Such allowance is respectfully solicited.

Respectfully submitted,


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